

**BY ORDER OF THE COMMANDER
AIR EDUCATION AND TRAINING
COMMAND**



AF INSTRUCTION 91-204

**AIR EDUCATION AND TRAINING COMMAND
Supplement 1**

2 JUNE 1997

Safety

**INVESTIGATING AND REPORTING US AIR
FORCE MISHAPS**

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“HOLDOVER”

***“The basic publication has changed; impact on supplemental information is under review by the OPR.
Users should follow supplemental information that remains unaffected.”***

AFI 91-204, 1 December 1996, is supplemented as follows:

NOTES:

1. This supplement does not apply to Air National Guard (ANG) units except where specifically stated. Aircraft mishap is used in this supplement as a reference to flight, flight-related, and aircraft-involvement mishaps and miscellaneous air operations.
2. This supplement applies to flight, ground, explosives, and nuclear weapons system mishap investigation and reporting. It is affected by the Privacy Act of 1974 under 5 U.S.C. 301, 5 U.S.C. 651 et seq., and 29 CFR 1960. Each form subject to provisions of AFI 37-132, *Air Force Privacy Act Program*, and required by this supplement, contains a Privacy Act statement incorporated in the body of the form.
3. All reports in this supplement are exempt from assignment of report control symbols per AFI 37-124, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections*.
4. Unit supplements must be approved by HQ AETC/SE prior to publication.

1.2.5.4. Written mishap notification procedures will be developed at each wing or unit. Procedures may be outlined in a wing or unit instruction. Establish procedures ensuring prompt notification of all mishaps by subordinate units. AETC Form 435, **Mishap Data Worksheet**, may be used to follow up mishap noti-

fication procedures. If used, send the form through the unit safety representative and commander to the wing safety staff.

1.2.6. For AETC bases, the commander will ensure:

1.2.6.1. The transportation officer serves as the technical representative during investigations of vehicle mishaps as requested by safety investigators. When requested, the transportation officer will provide the estimated damage and (or) repair costs (materials and man-hours) to the safety staff for use in determining reportability.

1.2.6.2. Claims personnel (in the staff judge advocate's office) and ground safety personnel exchange nonprivileged mishap information as soon as they become aware of property damage or personal injury involving Air Force ground operations.

1.2.6.3. The installation civil engineer notifies the safety staff of any unintentional damage to Air Force property and provides the estimated cost of repairs for damaged facilities and (or) equipment.

1.2.6.4. The contracting officer coordinates with the safety staff on contractor mishaps involving Air Force operations and equipment.

1.4.2.2. The appropriate numbered Air Force (NAF) commander will appoint the safety investigation board (SIB) or single investigating officer for all on-duty class B mishaps. **NOTE:** Air University (AU) and Air Force Recruiting Service (AFRS) are considered NAFs when determining responsibility for investigating class B mishaps.

1.16.4. See paragraph AFD 91-2, *Safety Programs*, for further guidance.

2.1. Implement a system for validating ground mishaps. Source documents will be annotated with a report number or rationale for nonreportability.

2.1.1. Organizational commanders will provide the local safety office a copy of medical treatment facility forms placing personnel on quarters for an injury.

2.1.3. The civilian personnel office (CPO) and the nonappropriated fund personnel office will keep a monthly log of civilian injuries and forward a copy to the safety office each month. (This includes injuries to youth opportunity and student assistance program employees.)

2.1.21. Other examples of minimum stress and strain are walking, exiting a vehicle, rising from a chair, and ascending or descending a flight of stairs without a slip, trip, or fall. Examples are not all inclusive.

2.1.23. (Added) **Lost-Time Injuries.** The determination that a lost-time injury is not reportable must be well founded and consistent with the findings of a competent medical authority. A memorandum for record (MFR) substantiating rationale for not reporting a mishap must be approved by the ground safety manager or chief of safety. Supporting documents will be attached to the MFR as follows:

2.1.23.1. For both military and civilians, include AETC Form 435.

2.1.23.2. For civilians only, include copies of the following compensation act (CA) forms: CA 1, **Federal Employees Notice of Traumatic Injury and Claim for Continuation of Pay/Compensation**; CA 2, **Notice of Occupational Disease and Claim for Compensation**; and CA 16, **Authorization for Examination and (or) Treatment**; and (or) CA 17, **Duty Status Report**. (**NOTE:** For nonappropriated fund employees, include copies of the following longshoremen (LS) forms: LS-1, **Request for Examination and (or) Treatment**; LS 201, **Notice of Employee's Injury or Death**; and (or) LS 202, **Employer's**

First Report of Injury or Occupational Illness.) These forms are provided to safety and health offices by the Injury Compensation Program Administrator (ICPA) according to injury compensation directives.

2.1.23.3. For military only, annotate hospital admission and disposition (A and D) sheets, if provided, and attach the MFR with other substantiating documents to the A and D sheets.

3.2. Mishap investigations must be conducted by safety personnel with assistance from unit safety representatives (USR), commanders, supervisors, etc.. This will ensure a complete safety investigation is accomplished and a factual mishap report is prepared. The wing safety staff will visit the scene of potentially serious reportable ground mishaps, occurring on or off base within a reasonable travel distance, to gather pertinent, firsthand facts to ensure a thorough investigation.

3.2.7. Safety staffs will help the base contracting office investigate and report contractor mishaps involving Air Force personnel or resources.

3.2.7.4. Safety staffs should ensure contract performance work statements (PWS) specify that the contractor will report government property damage mishaps.

3.3.2. The SIB member's wing (or directorate at higher headquarters) of assignment will fund the TDY and publish the TDY orders.

3.5.1. At the discretion of the AETC commander, investigating officers for Class B and C flight mishaps may be selected from outside the mishap organization. Local safety staffs will assist the investigating officer. The AFRS safety manager will provide assistance as appropriate to all AFRS units experiencing a mishap.

3.5.2. An investigator from outside the command requires HQ AETC/SE approval.

3.6. Wings will provide HQ AETC/SEF a quarterly list of potential mishap SIB members to include potential board position, name, grade, unit, office, work and home phone numbers, SSN, AFSC, previous board experience, current and previous aircraft flown, safety schools attended, and date arrived station (DAS). In addition, once a month wings will provide a roster of AFSC Board Presidents Training Course graduates assigned to AETC at their base. The roster will include duty title, current aircraft, and previous notable aviation experience (military and civilian) for each quarter.

3.6.1. The Class B SIB president will be a lieutenant colonel, GS-11, or higher. After assuming duties and obtaining general circumstances of the mishap, the board president will brief HQ AETC/SE.

3.6.3.4. If human factors appear to have significantly contributed to the mishap, appoint an aerospace physiologist trained to serve as a consultant or advisor in human factors or crew resource management. A psychologist trained as an aircraft mishap investigation consultant may be the primary human factors consultant if psychological pathology is suspected or maladjustment to psychological stress appears to be the most significant human factor. Requests for a human factors consultant should be made to HQ AETC/SGP through HQ AETC/SE.

3.7.6.1. Wreckage will be turned over to the AFI 51-503 (*Aircraft, Missiles, Nuclear, and Space Accident Investigation*) investigating officer by HQ AETC/JA or designated representative. Obtain a written receipt from the office acknowledging custodial responsibility. The following statement should be included: "The wreckage and MDR exhibits of (aircraft and serial number) are released from the safety investigation for your disposition. Request you acknowledge receipt or provide disposition instructions as required by AFI 51-503." List only those items being transferred to the AFI 51-503 board.

3.8.2.3.1. Requests for assistance from the Naval Sea Systems Command will be telephonically coordinated with HQ AETC/SE.

3.9. When a laboratory analysis or teardown deficiency report (TDR) is requested for a component suspected of being critical to the cause of a Class A mishap, the SIB president will designate an individual who is fully conversant with all factors involved in the mishap to accompany the item. This individual will observe the laboratory analysis or TDR and request a preliminary evaluation for the mishap board. Requests for TDRs or laboratory analysis by civilian or other US government agencies will be coordinated in advance with HQ AETC/SE.

3.9.1. Mishap reports that require a deficiency report (DR) will be coordinated at the logistics group commander level or higher. DRs will be coordinated with the unit chief of safety and sent as info to HQ AETC/SE. CAT I DR control numbers will contain the related AETC mishap control number.

3.10.1. Coordinate technical assistance with HQ AETC/SE.

3.10.2. For bases with contract maintenance, quality support offices will assist wing safety personnel in the mishap investigation.

3.16.2. For Class C or high accident potential (HAP) mishap recommendations, do not assign action OPRs without first coordinating with HQ AETC/SE.

3.16.7. Send HQ AETC/SE a copy of AFTO Form 22, **Technical Order Improvement Report and Reply**, or AF Form 847, **Recommendation for Change of Publication**. Ensure the mishap number and a brief releasable description of the mishap are included on the applicable form.

4.2. Refer to AFMAN 10-206, Operational Reporting, for required OPREP-3 reports and to AETCI 21-101, volume 2, *Maintenance Management of Aerospace Equipment*, for additional mishap and incident reporting requirements for aircraft maintenance. If in doubt about reporting an event, contact the NAF and HQ AETC/SEF or SEG for guidance. After duty hours, contact the NAF and HQ AETC/SE on-call representative through the AETC Command Post. Regardless of mishap classification, the AETC Commander must be made aware of unusual, high-interest, or other events having significant mishap potential. Generally, any incident resulting in suspected serious injury or extensive damage to government property should be reported. If known, address alcohol or drug involvement and whether safety belts were used. Make telephone reports to HQ AETC/SE as soon as possible about incidents being reported.

4.8.1. To the final consolidated mishap report (CMR), add the applicable worldwide address indicating groups (AIG) (see figure 4.6 (Added-AETC), this supplement) for Class A and B mishaps and those significant Class C and HAP mishaps with worldwide application. For mishaps having AETC-wide significance, use the appropriate AETC AIG. (Do not use both AIG 10906 and 10907.)

4.8.1.3. SIBs (including interim boards) will include AIG 10906 on all AFI 91-204-required message reports for Class A and B aircraft mishaps. Include AIG 10907 on all AFI 91-204-required weapon reports and for Class A and B ground mishaps.

4.8.1.3.4. (Added) Send a copy of AIG recapitulation modifications to the servicing telecommunications center (TCC) and message distribution center (MDC).

4.8.1.3.5. (Added) HQ AETC/SE will retransmit message reports to the appropriate AIG for mishaps occurring at or near non-AETC bases without access to all AIGs normally used in reporting AETC mishaps.

4.8.2.3. Mishap control numbers must be sequential so they can be effectively tracked by category (flight, ground, missile, explosives). Mishap event numbers for AETC will be numbered in sequence for each month (not annually). Unit control numbers will be sequenced by category (that is, flight - 001 to 025, A, B, or C; ground - 026 to 050, A, B, or C; explosives - 051 to 075, A, B, or C; or missile - 076 to 100, A, B, or C). Tenant unit numbers should be assigned blocks of numbers that do not duplicate the host base's unit control numbers.

4.8.3. As a minimum, fax a draft copy of the message report to the HQ AETC/SE staff before releasing class A and B flight mishap formal progress reports.

4.12. The host base safety staff will maintain these logs for all personnel assigned to the base, including tenant units serviced by the civilian or military personnel office.

Figure 4.3:

5.1.12. If toxicological (TOX) testing was required but not accomplished, explain in the narrative. (See figure 4.3, paragraph 7, in the basic instruction and this supplement.)

7. For flight, flight-related, and foreign object damage (FOD) mishaps, preface the narrative description with the following: A concise statement of the event that made the mishap reportable, aircraft type, syllabus mission designation or mission type, and the dual, solo, continuation training (CT) solo, or team status (for example, T-37B engine flameout in flight, C-2401, dual). In addition (where applicable), add the requested information (or answers to the questions) in paragraphs 7.1 through 7.14.8 below:

7.1. For tanker-related mishaps, boom position or hose position, elevation (degrees), extension (feet) receiver position, and stable or unstable drogue.

7.2. Breakaway or brute force disconnect.

7.3. For the tanker, upper and lower beacon, position, navigation, nacelle illumination, air refueling (A/R) flood, and boom nozzle lights. For the receiver, upper and lower beacon, position, navigation, A/R receptacle or probe, area, formation, and leading edge lights.

7.4. Did tanker or receiver A/R indicator lights show contact or fuel flow at time of mishap?

7.5. Refueling altitude.

7.6. Maximum refueling altitude.

7.7. Receiver gross weight.

7.8. Tanker gross weight.

7.9. Was the tanker autopilot on or off?

7.10. Was the tanker operating in "tanker manual?"

7.11. Was the tanker operating with asymmetric power?

7.12. Was the hose reel response normal?

7.13. For J-69 flameouts, include the following:

7.13.1. Estimated temperature at highest cruise altitude.

7.13.2. Duration of cruise.

7.13.3. Throttle movement at flameout.

- 7.13.4. Estimated lowest outside air temperature on the ground where aircraft previously sat overnight.
- 7.13.5. Fuel type and grade or anti-icing inhibitor.
- 7.14. For G-induced loss of consciousness (GLOC) related episodes, include the following:
- 7.14.1. G-level.
- 7.14.2. G at onset of GLOC symptoms.
- 7.14.3. Onset rate of G (abrupt or slow).
- 7.14.4. Aerial maneuver being performed. (Include the phase of maneuver where GLOC occurred and which occupant was flying the aircraft at the time of the GLOC.)
- 7.14.5. Description of GLOC symptoms.
- 7.14.6. Time of incapacitation and length of unconsciousness.
- 7.14.7. Individual's age, height, weight, a description of his or her physical conditioning program, and the type of activities, including frequency and duration in hours per week.
- 7.14.8. Recent G-exposure history, including dates and types of three previous missions.
- 7.14.9. Altitude at time of GLOC.
- 7.14.10. Altitude at time of recovery.

Figure 4.6. (Added) AIGs for AETC Aircraft.

<u>Aircraft</u>	<u>AIG</u>
Aero Club	AIG 9405
AETC flying units	AIG 10906
Air Refueling units	AIG 8209
C-5	AIG 9383
C-12	AIG 9388
C-21	AIG 9401
C-130	AIG 9387
C-135/KC-10	AIG 9392
C-141	AIG 9398
F-15	AIG 9407
F-16	AIG 9399
Helicopters	AIG 9386
T-37	AIG 9397
T-38	AIG 9395

Table 4.1:

Line 13, Column B. Abbreviated CMRs will be upchanneled by message, but will not be addressed to AFSC.

Line 13, Column C. Abbreviated CMRs may be upchanneled anytime during the reporting month. HQ AETC/SEG will consolidate and upchannel the CMR to arrive at AFSC by the suspense date.

Table 4.2:

Line 1, Column C. Abbreviated CMRs will not be addressed to AFSC.

Line 4, Column C. See note 10 (Added-AETC).

Line 13, Column C. See note 11 (Added-AETC).

Line 34, Column A. System manager ALCs for AETC aircraft are as follows: San Antonio ALC--C-5, T-37, and T-38; Warner Robins ALC--C-130, C-141, F-15, H-1, H-3, H-53, and H-60; Oklahoma City ALC--C-12, C-21, T-43, F-16, C-135, T-1A, T-3A, and T-41.

NOTE 10. (Added-AETC) For mishaps with AETC-wide significants, use the appropriate AETC AIG. SIBs (including interim boards) for class A and B mishaps. For flight and explosives mishaps, include AIG 10906//SE//. For all Class A, B, and HAP ground mishaps, include AIG 10907//SE//.

NOTE 11. (Added-AETC) Ground HAP mishap reports should be sent to all MAJCOMs.

5.11. The wing commander of the organization that had the mishap will attend briefings to the AETC Commander. The SIB president will brief other mishaps on a case-by-case basis. HQAETC/SE is the point of contact for scheduling the briefing.

Figure 5.5, Item 14, Bullet 4, Subbullet 6. Includes intercept phase of flight.

Table 5.1:

Line 8, Column B. Send copy to NAF/SE.

Line 9, Columns A and B. Send three copies to HQ AETC/SE.

Table 5.2:

Line 5, Column B. Send copy to the appropriate NAF/SE.

Line 6, Columns A and B. Send two copies to HQ AETC/SE.

Table 5.3:

Line 6, Columns A and B. For ANG mishaps, send one copy to the gaining HQ AETC/SE.

Line 7, Columns A and C. Send one copy to HQ AETC/SE and one copy to ANG/SE. After review, file one copy and destroy all others.

Table 5.5:

Line 3, Column A. Send two copies to HQ AETC/SE.

Line 6, Column B. Send copy to NAF/SEG.

7.4. The wing safety staff ensures each aircrew experiencing an in-flight emergency is fully debriefed by safety or other personnel as determined by the wing commander. The AETC Form 645-4, **Trend Data Report**, or a HQ AETC/SEF-approved substitute, will be initiated for each occurrence involving AETC aircraft. For reporting, an in-flight emergency is defined as any condition that makes further safe flight uncertain or presents a clear and present danger to the aircrew or aircraft. "Intent for flight" rules apply as defined in attachment 1 of the basic instruction. During debriefing, all shaded blocks down to and including the discrepancy must be fully annotated. Normally, AETC Form 645-4 should be completed within

14 days of the mishap. (Completed copies should be mailed to HQ AETC/SEF weekly.) AETC Form 645-4 will be distributed and disposed of as follows:

- Keep one (hard) copy with the aircraft's AFTO Form 781A, **Maintenance Discrepancy and Work Document**, until all maintenance actions are completed.
- Document pending investigation, troubleshooting, and corrective action. When the corrective action is accomplished, annotate the corrective action on the form and forward it to wing safety.
- Send one completed (electronic) copy to HQ AETC/SEF.
- Retain one (electronic) copy in the wing safety office as a file copy until the completed copy is received.
- Send one (electronic) copy to the unit operations officer.

7.4.9.8. T-37 and T-38 engine no-starts or aborted starts because of Dash One limitations (except fire and overheat conditions) or student errors are not reportable.

7.4.9.8.1. Exceptions in this paragraph also include ground aborts caused for other than engine-related reasons.

7.4.9.14.1. For physiological mishaps (except GLOCs, loss of cabin pressure above FL 180 without symptoms, and trapped gas disorders), flight safety, flight surgeon, and aircraft maintenance personnel will meet the aircraft and determine if impounding the aircraft and the crewmember's life support equipment is required. Environmental systems maintenance, life support, flight surgeon, and safety personnel will inspect aircraft ground support equipment and life support equipment, as applicable. If the cause of the mishap cannot readily be determined, the safety officer and flight surgeon will jointly determine if oxygen samples need to be taken. On completion of corrective actions and with the concurrence of the flight safety officer, the operations or logistics group commander may release the aircraft and ground support equipment for flight. If the aircraft never had cabin pressure, do not report the mishap as a loss of cabin pressure.

7.4.9.14.3. For reporting purposes, students and trainees in AETC flying activities are reported here. If in doubt, call NAF/SE or HQ AETC/SEF.

7.4.9.17. (Added) Gear up landing, either intentional or unintentional, regardless of aircraft damage.

8.5. Immediately notify HQ AETC/SE of any Class A or B missile mishap; in turn HQ AETC/SEG will notify NAF/SE.

10.1. Report action taken to safe and recover explosive stores dropped off range.

10.4.4. Immediately notify HQ AETC/SE of any Class A or B explosives mishap; in turn HQ AETC/SEG will, notify NAF/SE.

11.4. Chiefs of safety may develop and implement local procedures for on-duty mishaps not reportable under the basic instruction. On-duty ground mishap investigation and data requirements will be based on severity, type, mishap problem areas, and new operations. Record military or civilian sports-related injuries sustained during lunch periods, rest periods, or squadron functions as follows:

- Report a military injury as an off-duty mishap.
- Record a civilian injury on AF Form 739 or equivalent as a nonreportable injury.

11.4.1.1. All on-duty Class A and B mishaps require a formal investigation and report by an appointed (special orders) mishap investigation board or officer. (See paragraph 1.4.2 of the basic instruction.)

11.4.1.1.3. Bullet 2, Tab U. Include witnesses statements in HQ AETC and NAF copies of all formal reports.

11.4.3. Motorcycle mishap reports will address the following in the finding statements:

- Type of motorcycle safety training received. (If no training was received, so state.)
- Total street riding experience (in months or years).
- Riding experience for the type of motorcycle involved in the mishap (in months or years).

11.4.3.1. For Class A and B off-duty mishap final message reports, provide wing or recruiting group commander concurrence with the report and any corrective action taken at that level.

11.7. Include AIG 10907/SE as addressee on HAP ground mishaps. Ensure HAP ground (aircraft-involved) mishaps are addressed to all users of like aircraft.

11.8. The director of installation medical services will assist the safety staff with occupational health and environmental issues. This includes establishing procedures to ensure the host installation safety office has the opportunity to review records required to ensure mishap accountability.

11.10. (Added) Use of AETC Form 740, General Mishap and Safety Education Summary. All units and activities reporting directly to HQ AETC will submit AETC Form 740. Base-level safety staffs will complete and forward the form to arrive at HQ AETC/SE no later than the 10th calendar day following the end of the report month. Forms may be e-mailed, faxed, or mailed (as the last resort). Use the previous month's strength and exposure data.

11.11. (Added) Briefing the AETC Commander. The AETC Commander will be briefed via video teleconference (VTC) on all Class A ground mishaps (and others as requested). Briefings will be presented by the immediate commander of the individual involved in the mishap, accompanied by the next higher echelon of commander. The wing commander may approve additional attendance. HQ AETC/SE will schedule briefings through the appropriate chief of safety for presentation within 45 to 60 days after the mishap. HQ AETC/SE will provide briefing guidelines to the applicable commander immediately after notifying him or her that a briefing is required.

13.5. The safety officer ensures AF Form 711GC, **Life Sciences Report of a Class C Physiological Mishap**, is prepared in an original and five copies. Send the original to HQ AFSC/(appropriate discipline), 9750 Avenue G, Suite 235A, Kirtland AFB NM 87117-5671; one copy to HQ AFMOA/SGPA, Bolling AFB DC 20332-6188; one copy to the appropriate NAF/SE; one copy to HQ AETC/SG, 63 Main Circle, Suite 3, Randolph AFB TX 78150-4549; and two copies to HQ AETC/SE, 550 C St West, Suite 55, Randolph AFB TX 78150-4757.

15.4. (Added) Forms Prescribed. AETC Forms 435, 645-4, and 740.

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